

Important Advances in Clinical Medicine

Epitomes of Progress — Otolaryngology

The Scientific Board of the California Medical Association presents the following inventory of items of progress in otolaryngology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in otolaryngology which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Otolaryngology of the California Medical Association and the summaries were prepared under its direction.

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Computed Tomography With Simultaneous Contrast Sialography

CONTRAST SIALOGRAPHY is most useful in investigating radiolucent calculi and chronic inflammatory diseases to detect or exclude duct stricture or sialiectasis. Sialography is of limited value in investigating mass lesions. In general, if the mass is intrinsic and at least 1 cm, it will distort the duct system enough to allow its identification. Others feel sialography is useless in the evaluation of mass lesions because the results cannot provide clinical data needed to determine whether the mass is a neoplasm or whether it is benign or malignant.

Computed tomography (CT) has not proved useful in the evaluation of mass lesions of the parotid gland. However, CT scanning can be combined with simultaneous contrast sialography. This technique involves doing a standard sialogram using meglumine diatrizoate as the contrast medium while the patient is inside the scanner. The patient injects the medium himself and is instructed to inject to the point of discomfort. Scans are then taken 0.5 to 1.0 cm apart, starting at the level of the zygomatic arch. This increases the roentgenographic density of the duct system and parenchyma.

The combined technique has several advantages over other methods of investigation. (1) It can detect intraparotid masses before they are palpable. In our early work with this technique, bilateral studies were done. In one patient a mass was noted on the "normal" side, which became palpable two weeks later. (2) It can show small masses superimposed on the parotid. In one patient a 0.5-cm mass was detected lying on the lateral surface of the gland. This was treated with the expectation that it was a periparotid node and it disappeared subsequently. (3) It can clearly delineate masses medial to the parotid. In several patients this technique has been able to separate deep lobe tumors from other parapharyngeal masses. (4) Because of the axial projection, it shows the relationship of the parotid tumor to the styloid process, the mastoid tip and the facial nerve. (5) Further, it has been able to accurately show extraparotid extension of malignant parotid lesions. In the first malignant lesion scanned by the authors, the tomograms detected the clinically unsuspected invasion of the sternocleido-mastoid muscle. This was confirmed at operation.

Thus, computed tomography combined with simultaneous contrast sialography increases the